QUESTIONS OR COMMENTS?

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AUSTRALIA	1300 362 603	www.samsung.com/au/support

This product is RoHS compliant

Duct Type Series
BIG duct : NS✳✳✳HH✳✳✳

Air Conditioner
user & installation manual

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EN DB98-33920A(6)

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Features of your new air conditioner

Cool Summer Offer

On those hot sweltering summer days and long restless nights, there is no better escape from the heat than the cool comforts of home. Your new air conditioner brings an end to exhausting hot summer days and lets you rest. This summer, beat the heat with your own air conditioner.

Cost Efficient System

Your new air conditioner not only provides maximum cooling power in the summer, but can also be an efficient heating method in the winter with the advanced "Heat pump" system. This technology is up to 300% more efficient than electrical heating, so you can further reduce its running cost. Now, meet year-round needs with one air conditioner.

Flexible installation

Duct type air conditioner is designed to be slimmer and offers different solutions for any shape room allowing for specific air flow requirements. Also, the air intake can be set up on either the bottom or rear of the unit, so there is more flexibility in installation.

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

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Safety precautions

Before using your new air conditioner, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

Because the following operating instructions cover various models, the characteristics of your air conditioner may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

WARNING	Hazards or unsafe practices that may result in **severe personal injury or death.**
CAUTION	Hazards or unsafe practices that may result in **minor personal injury or property damage.**
	Follow directions.
	Do NOT attempt.
	Make sure the machine is grounded to prevent electric shock.
	Unplug the power plug from the wall socket.
	Do NOT disassemble.

FOR INSTALLATION | WARNING

Plug the power cord into a wall socket with the power specifications of the product or higher and use the socket for this appliance only. In addition, do not use an extension cord.

- Sharing a wall socket with other appliances using a power strip or extending the power cord may result in electric shock or fire.
  Do not use an electric transformer. It may result in electric shock or fire.
- If the voltage/frequency/rated current condition is different, it may cause fire.

The installation of this appliance must be performed by a qualified technician or service company.

- Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.

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Install a switch and circuit breaker dedicated to the air conditioner.

▶ Failing to do so may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.

▶ If the outdoor unit falls, it may result in injury, death or property damage.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.

▶ Failing to do so may result in electric shock or fire.

Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.

▶ This may result in electric shock or fire.

This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.

▶ Failure to do so may result in electric shock, fire, an explosion, or other problems with the product.

▶ Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

FOR INSTALLATION | ⚠ CAUTION

This appliance should be positioned in such a way that it is accessible to the power plug.

▶ Failing to do so may result in electric shock or fire due to electric leakage.

Install your appliance on a level and hard floor that can support its weight.

▶ Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the draining hose properly so that water is drained correctly.

▶ Failing to do so may result in water overflowing and property damage.

When installing the outdoor unit, make sure to connect the draining hose so that draining is performed correctly.

▶ The water generated during the heating operation by the outdoor unit may overflow and result in property damage. In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.

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Safety precautions

FOR POWER SUPPLY | ⚠ WARNING

Remove all foreign substances such as dust or water from the power plug terminals and contact points using a dry cloth on a regular basis.

- ▶ Unplug the power plug and clean it with a dry cloth.
- ▶ Failing to do so may result in electric shock or fire.

Plug the power plug into the wall socket in the right direction so that the cord runs towards the floor.

- ▶ If you plug the power plug into the socket in the opposite direction, the electric wires within the cable may be damaged and this may result in electric shock or fire.

When the appliance or power plug or power cord is damaged, contact your nearest service center.

Plug the power plug into the wall socket firmly. Do not use a damaged power plug, damaged power cord or loose wall socket.

- ▶ This may result in electric shock or fire.

Do not pull the power cord, when unplugging the power plug.

- ▶ Unplug the power plug by holding the plug.
- ▶ Failing to do so may result in electric shock or fire.

Do not pull or excessively bend the power cord. Do not twist or tie the power cord. Do not hook the power cord over a metal object, place a heavy object on the power cord, insert the power cord between objects, or push the power cord into the space behind the appliance.

- ▶ This may result in electric shock or fire.

FOR POWER SUPPLY | ⚠ CAUTION

When not using the air conditioner for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.

- ▶ Failing to do so may result in electric shock or fire.

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If the appliance is flooded, please contact your nearest service center.

▶ Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.

▶ Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power plug. Do not touch the appliance or power cord.

▶ Do not use a ventilating fan.

▶ A spark may result in an explosion or fire.

To reinstall the air conditioner, please contact your nearest service center.

▶ Failing to do so may result in problems with the product, water leakage, electric shock, or fire.

▶ A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.

▶ Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.

Do not touch the power plug or the circuit breaker with wet hands.

▶ This may result in electric shock.

Do not unplug the power plug or turn the air conditioner off with the circuit breaker while it is operating.

▶ Plugging the power plug into the wall outlet or turning the air conditioner on from the circuit breaker may cause a spark and result in electric shock or fire.

After unpacking the air conditioner, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.

▶ If a child places a bag over his or her head, it may result in suffocation.

Do not insert your fingers or foreign substances into the air inlet/outlet of the air conditioner.

▶ Take special care that children do not injure themselves by inserting their fingers into the product.

Do not strike or pull the air conditioner with excessive force.

▶ This may result in fire, injury, or problems with the product.

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Safety precautions

Do not place an object near the outdoor unit that allows children to climb onto the machine.

▶ This may result in children seriously injuring themselves.

Do not use this air conditioner for long periods of time in badly ventilated locations or near infirm people.

▶ Since this may be dangerous due to a lack of oxygen, Open a window at least once an hour.

If any foreign substance If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.

▶ Failing to do so may result in electric shock or fire.

Do not attempt to repair, disassemble, or modify the appliance yourself.

▶ Do not use any fuse (such as cooper, steel wire, etc.)other than the standard fuse.

▶ Failing to do so may result in electric shock, fire, problems with the product, or injury.

FOR USING | ⚠ CAUTION

Do not place objects or devices under the indoor unit.

▶ Water dripping from the indoor unit may result in fire or property damage.

Check that the installation frame of the outdoor unit is not broken at least once a year.

▶ Failing to do so may result in injury, death or property damage.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.

▶ This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.

▶ This may result in electric shock.

Do not spray volatile material such as insecticide onto the surface of the appliance.

▶ As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

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Do not drink the water from the air conditioner.

▶ The water may be harmful to humans.

Do not apply a strong impact to the remote controller and do not disassemble the remote controller.

Do not touch the pipes connected with the product.

▶ This may result in burns or injury.

Do not use this air conditioner to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.

▶ This may result in property damage.

Avoid directly exposing humans, animals or plants from the air flow from the air conditioner for long periods of time.

▶ This may result in harm to humans, animals or plants.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

FOR CLEANING | ⚠ WARNING

Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.

▶ This may result in discoloration, deformation, damage, electric shock or fire.

Before cleaning or performing maintenance, unplug the air conditioner from the wall socket and wait until the fan stops.

▶ Failing to do so may result in electric shock or fire.

FOR CLEANING | ⚠ CAUTION

Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.

▶ To avoid cutting your fingers, wear thick cotton gloves when cleaning it.

Do not clean the inside of the air conditioner by yourself.

▶ For cleaning inside the appliance, contact your nearest service center.

▶ When cleaning the internal filter, refer to the descriptions in the 'Cleaning and maintaining the air conditioner' section.

▶ Failure to do may result in damage, electric shock or fire.

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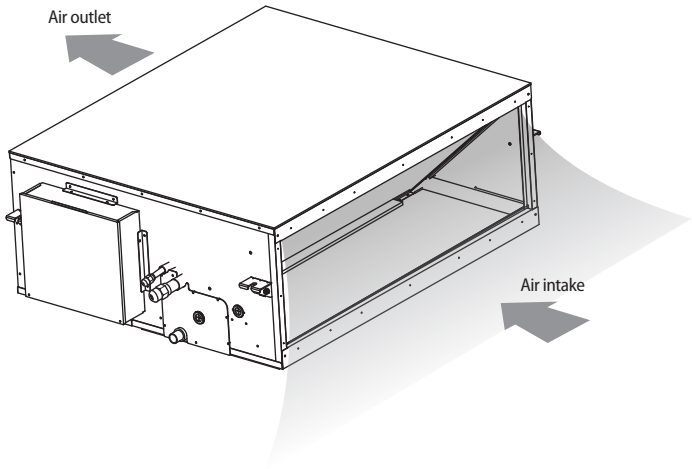
Viewing your air conditioner

Congratulations on the purchase of the air conditioner. We hope you enjoy the features of your air conditioner and stay cool or warm with optimal efficiency.

Please read the user manual to get started and to make the best use of the air conditioner.



NOTE

- Your air conditioner may slightly look different from illustration shown above depending on your model.

Using your air conditioner

NOTE

- A Samsung-branded air conditioning unit installed in an area which is not easily accessible (including without limitation roofs or positions above 2.4 metres for the outdoor unit) may require additional costs for labour and access equipment as may be mandated by occupational health and safety requirements. Such costs are to be borne by you should service or maintenance (including service or maintenance covered by your warranty or by a consumer guarantee) be required.

Tips on using your air conditioner

Here are some tips that you would follow when using your air conditioner.

TOPIC	RECOMMENDATION
Cooling	• If current outside temperatures are much higher than the selected indoor temperature, it may take time to bring the inner temperature to the desired coolness. • Avoid drastically turning down the temperature. Energy is wasted and the room does not cool faster.

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TOPIC	RECOMMENDATION
Heating	• Since the air conditioner heats the room by taking heat energy from outdoor air, the heating capacity may decrease when outdoor temperatures are extremely low. If you feel the air conditioner insufficiently heats, using an additional heating appliance in combination with the air conditioner is recommended.
Frost & De-ice	• When the air conditioner runs in Heat mode, due to temperature difference between the unit and the outside air, frost will form. • If this happens: - The air conditioner stops heating. - The air conditioner will operate automatically in De-ice mode for 10 minutes. - The steam produced on the outdoor unit in De-ice mode is safe. • No intervention is required; after about 10 minutes, the air conditioner operates again normally. NOTE • The unit will not operate when it starts to de-ice.
Fan	• Fan may not operate for about 3~5 minutes at the beginning to prevent any cold blasts while the air conditioner is warming up.
High indoor/ outdoor temperatures	• If both indoor and outdoor temperatures are high and the air conditioner is running in Heat mode, the outdoor unit's fan and compressor may stop at times. This is normal; wait until the air conditioner turns on again.
Power failure	• If a power failure occurs during the operation of the air conditioner, the operating immediately stops and unit will be off. When power returns, the air conditioner will run automatically.
Protection mechanism	• If the air conditioner has just been turned on after operation stops or being plugged in, cool/warm air does not come out for 3 minutes to protect the compressor of the outdoor unit.

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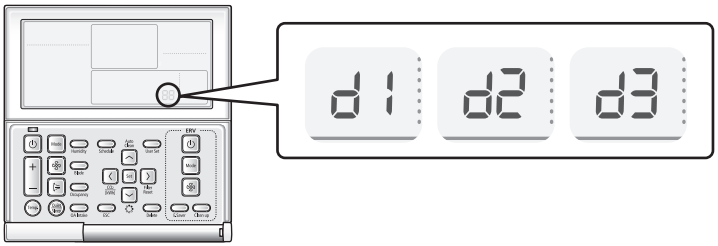
Using your air conditioner

Demand Response Mode : DRM 1,2,3 (NS180HHXEG model only)

This air conditioner is equipped with a Demand Response unit which will respond to a signal sent by the power supply utility during emergency conditions.

- During a Demand Response Event, the indoor and outdoor unit will be operated according to DRM mode(DRM 1, 2, 3) and indoor unit will show "d1,d2,d3" on the display.



AIR CONDITIONER DEMAND RESPONSE MODES			
Operational instruction (OI)	**Demand response mode (DRM)***	**Description of operation in this mode**	**Mandatory for compliance with this Standard (AS/NZS 4755.3.1)**
OI 1	DRM 1	Compressor off	Yes
OI 2	DRM 2	The air conditioner continues to cool or heat during the demand response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 50% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.	No
OI 3	DRM 3	The air conditioner continues to cool or heat during the demand response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 75% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.	No

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Cleaning and maintaining the air conditioner

For the best performance from your air conditioner, clean it periodically. When cleaning, make sure to unplug from the unit for user's safety.

Maintaining your air conditioner

If the air conditioner will not be used for an extended period of time, dry the air conditioner to maintain it in best condition.

1. Dry the air conditioner thoroughly by operating in Fan mode for 3 to 4 hours and disconnect the power plug. There may be internal damage if moisture is left in components.
2. Before using the air conditioner again, dry the inner components of the air conditioner again by running in Fan mode for 3 to 4 hours. This helps remove odors which may have generated from dampness.

Periodical checks

Refer to the following chart to maintain the air conditioner properly.

Type	Description	Monthly	Every 4 months	Once a year
Indoor unit	Clean the air filter (1)	●		
	Clean the condensate drain pan (2)			●
	Thoroughly clean the heat exchanger (2)			●
	Clean the condensate drain pipe (2)		●	
	Replace the remote control batteries (1)			●
Outdoor unit	Clean the heat exchanger on the outside of the unit (2)		●	
	Clean the heat exchanger on the inside of the unit (2)			●
	Clean the electric components with jets of air (2)			●
	Verify that all the electric components are firmly tightened (2)			●
	Clean the fan (2)			●
	Verify that all the fan assembly is firmly tightened (2)			●
	Clean the condensate drain pan (2)			●

NOTE

- The checks and maintenance operations described are essential to guarantee the efficiency of the air conditioner. The frequency of these operations varies according to the characteristics of the area, the amount of dust, etc.
  1) The described operations should be performed more frequently if the area of installation is very dusty.
  2) These operations must always be performed by qualified personnel. For more detailed information, see the Installation Manual.

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Cleaning and maintaining the air conditioner

Maintaining your air conditioner

Internal protections via the unit control system

This internal protection operates if an internal fault occurs in the air conditioner.

Type	Description
Against cold air	The internal fan will be off to against cold air when the heat pump is heating.
De-ice cycle	The internal fan will be off to against cold air when the heat pump is heating.
Anti-protection of internal battery	The compressor will be off to protect internal battery when the air conditioner operates in Cool mode.
Protect compressor	The air conditioner does not start operating immediately to protect the compressor of the outdoor unit after it has been started.

NOTE

- If the heat pump is operating in Heat mode, De-ice cycle is actuated to remove frost from an outdoor unit that may have deposited at low temperatures.
- The internal fan is switched off automatically and restarted only after the de-ice cycle is completed.

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Appendix

Troubleshooting

Refer to the following chart if the air conditioner operates abnormally. This may save time and unnecessary expenses.

PROBLEM	SOLUTION
The air conditioner does not operate immediately after it has been restarted.	• Because of the protective mechanism, the appliance does not start operating immediately to keep the unit from overloading. The air conditioner will start in 3 minutes.
The air conditioner does not work at all.	• Check that the power plug is properly connected. Insert the power plug into the wall socket correctly. • Check if the circuit breaker is switched off. • Check if there is a power failure. • Check your fuse. Make sure it is not blown out.
The temperature does not change.	• Check if you selected Fan mode. Press the **Mode** button on the remote control to select another mode.
The cool (warm) air does not come out of the air conditioner.	• Check if the set temperature is higher (lower) than the current temperature. Press the **Temperature** button on the remote control to change the set temperature. Press the **Temperature** button to decrease or increase the temperature. • Check if the air filter is blocked by dirt. • Check if the air conditioner has just been turned on. If so, wait 3 minutes. Cool air does not come out to protect the compressor of the outdoor unit. • Check if the air conditioner is installed in a place with a direct exposure to sunlight. Hang curtains on windows to boost cooling efficiency. • Check if the cover or any obstacle is not near the outdoor unit. • Check if the refrigerant pipe is too long.
The cool (warm) air does not come out of the air conditioner.	• Check if the air conditioner is only available in Cool mode. • Check if the remote control is only available for cooling model.

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Appendix

PROBLEM	SOLUTION
The fan speed does not change.	• Check if you selected Auto or Dry mode. The air conditioner automatically adjusts the fan speed to Auto in Auto/Dry mode.
Timer function does not set.	• Check if you press the **Power** button on the remote control after you have set the time.
Odors permeate in the room during operation.	• Check if the appliance is running in a smoky area or if there is a smell entering from outside. Operate the air conditioner in Fan mode or open the windows to air out the room.
The air conditioner makes a bubbling sound.	• A bubbling sound may be heard when the refrigerant is circulating through the compressor. Let the air conditioner operate in a selected mode. • When you press the **Power** button on the remote control, noise may be heard from the drain pump inside the air conditioner.
Water is dripping from the air flow blades.	• Check if the air conditioner has been cooling for an extended period of time with the air flow blades pointed downwards. Condensation may generate due to the difference in temperature.
Remote controller is not working.	• Check if your batteries are depleted. • Make sure batteries are correctly installed. • Make sure nothing is blocking your remote control sensor. • Check that there are strong lighting apparatus near the air conditioner. Strong light which comes from fluorescent bulbs or neon signs may interrupt the electric waves.
The air conditioner does not turn on or off with the wired remote control.	• Check if you set the wired remote control for group control.
The wired remote control does not operate.	• Check if TEST indicator is displayed on the wired remote control. If so, turn off the unit and switch off the circuit breaker. Call your nearest contact center.
The indicators of the digital display flashes.	• Press the **Power** button on the remote control to turn the unit off and switch the circuit breaker off. Then, switch it on again.

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PROBLEM	SOLUTION
Indoor unit display indicates "d 1,d2,d3"	• This is not a defect. If the air conditioner receives a Demand Response signal from the power supply utility, then the compressor and fans will be operated according to DRM mode(DRM 1, 2,3). The indoor unit display will indicate "d 1, d2,d3".

Operation ranges

The table below indicates the temperature and humidity ranges the air conditioner can be operated within. Refer to the table for efficient use.

MODE	OPERATIONAL TEMPERATURE		INDOOR HUMIDITY	IF OUT OF CONDITIONS
	INDOOR	OUTDOOR		
COOLING	18˚C to 32˚C	-15˚C to 46˚C	80% or less	Condensation may occur on the indoor unit with risk to have either water blow off or drops on the floor.
HEATING	27˚C or less	-20˚C to 24˚C	-	Internal protection triggers and the air conditioner will stop.
DRYING	18˚C to 32˚C	-5˚C to 50˚C	-	Condensation may occur on the indoor unit with risk to have either water blow off or drops on the floor.

NOTE

• The standardized temperature for heating is 7˚C. If the outdoor temperature drops to 0˚C or below, the heating capacity can be reduced depending on the temperature condition. If the cooling operation is used at over 32˚C(indoor temperature), it does not cool at its full capacity.

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Safety precautions

The following safety precautions must be taken when using your air conditioner.

WARNING

- Risk of electric shock can cause injury or death.
- Disconnect all remote electric power supplies before servicing, installing or cleaning.
- Installation must be done by the manufacturer or service agent or a similar qualified person in order to avoid a hazard.

Installing the unit

- The unit should not be installed by the user. Ask the dealer or authorized company to install the units.
- If the unit is installed improperly, water leakage, electric shock or fire may result.
- Mount with the lowest moving parts at least 2.5 m above the floor or grade level. (If applicable)
- The manufacturer does not assume responsibility for accidents or injury caused by an incorrectly installed air conditioner. If you are unsure about installation, contact an installation specialist.
- When installing the built-in type air conditioner, keep all electrical cables such as the power cable and the connection cord in pipe, ducts, cable channels e.t.c to protect them against liquids, outside impacts and so on.

  The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.
- This appliance is not accessible to the general public. This appliance should be installed according to the provided installation instruction.
- When installing the air conditioner in a small room, the measure not to exceed the dangerous density is needed.
  - When refrigerant leaks and exceeds the dangerous density, suffocation may occur.
- If any gas or impurities except R410A refrigerant come into the refrigerant pipe, serious problem may occur and it may cause injury.
- Use only rated accessories and install the air conditioner with rated equipments.
  - If you dont't use the rated accessories, the air conditioner may drop from its place, water may leak or electric shock or fire may occur.
- Ventilate your room when refrigerant gas leaks during installation.
  - Toxic gas may generate when refrigerant gas contacts with heat.
- Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units' components must be accessible and that can be disassembled in conditions of complete safety either for people or things.

  For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

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Power supply line or circuit breaker

- If the power cable of this air conditioner is damaged, it must be replaced by service agent or similarly qualified persons in order to avoid a hazard.
- The unit must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring with a contact opening of >3mm.
- The air conditioner must be installed in accordance with national wiring regulations and safety regulations wherever applicable.
- The electric work must be done by service agent or similarly qualified persons according to national wiring regulations and use only rated cable.
  - If the capacity of the power cable is insufficient or electric work is not properly completed, electric shock or fire may occur.
- Install the cables with supplied cables firmly. Fix them securely so that external force is not exerted to the terminal board.
  - If the connection or fixing is incomplete, heat generation, electric shock or fire may occur.
- Connect the power cable between the indoor and outdoor unit properly so that the electrical component box cover is not get loosen and attach the cover securely.
  - If the the cover is attached incompletely, heat generation, electric shock or fire of the terminal board may occur.

⚠ CAUTION

- Make sure that you earth the cables.
  - Do not connect the earth wire to the gas pipe, water pipe, lighting rod or telephone wire. If earthing is not complete, electric shock or fire may occur.
- Install the circuit breaker.
  - If the circuit breaker is not installed, electric shock or fire may occur.
- Make sure that the condensed water dripping from the drain hose runs out properly and safely.
- Install the power cable and communication cable of the indoor and outdoor unit at least 1m away from the electric appliance.
- Install the indoor unit away from lighting apparatus using the ballast.
  - If you use the wireless remote control, reception error may occur due to the ballast of the lighting apparatus.
- Do not install the air conditioner in following places.
  - Place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak. The capacity of the heat exchanger may reduce or the air conditioner may be out of order.
  - The place where corrosive gas such as sulfurous acid gas generates from the vent pipe or air outlet.
  - The copper pipe or connection pipe may corrode and refrigerant may leak.
  - The place where there is a machine that generates electromagnetic waves. The air conditioner may not operate normally due to control system.
  - The place where there is a danger of existing combustible gas, carbon fiber or flammable dust.
  - The place where thinner or gasoline is handled. Gas may leak and it may cause fire.

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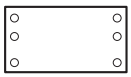
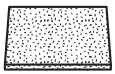
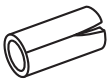
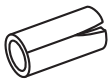
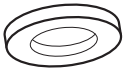
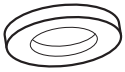
Accessories

The following accessories are supplied with the indoor unit.
The type and quantity may differ depending on the specifications.

User & Installation manual(1)	Pattern sheet(1) 	Insulation A(2)	Insulation B(1) 
Insulation pipe A(2) 	Insulation pipe B(1) 	Cable tie(4)	Flexible hose(1)
Clamp hose(2)	Washer(8) 	Grommet hanger(4) 	Wired remote controller(1)

Selecting the installation location

Indoor unit

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a ceiling that can support its weight.
- Maintain sufficient clearance around the indoor unit.
- Make sure that the water dripping from the drain hose runs away correctly and safely.
- The indoor unit must be installed in this way, that they are out of public access. (Not touchable by the users.)
- After connecting a chamber, insulate the connection part between the indoor unit and the chamber with t10 or thicker insulation. Otherwise, there can be air leak or dew from the connection part.
- Rigid wall without vibration.
- Where it is not exposed to direct sunshine.
- Where the air filter can be removed and cleaned easily.

Space requirements for installation & service

- Construction standard for inspection hole.
  1) In case, the ceiling is textile, inspection hole dose not need.
  2) In case, the ceiling is plaster board, inspection hole depends on inside height of the ceiling.
     a. Height is more than 1m : Only "B" [Inspection for PBA] is applied.
     b. Height is less than 1m : Both "A" & "B" are applied.
     c. "A" & "B" are inspection holes.

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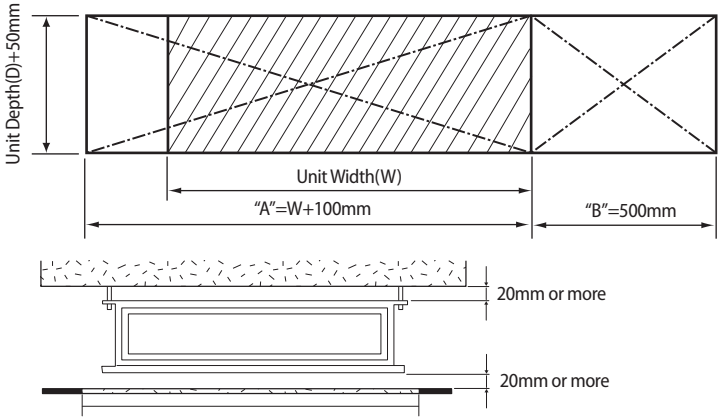
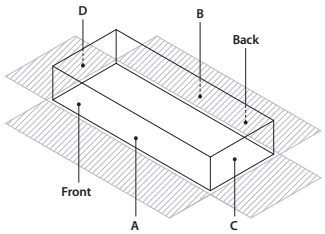


- You must have 20mm or more space between the ceiling and the bottom of indoor unit. Otherwise, the noise from the vibration of indoor unit may bother the user. When the ceiling is under construction, the hole for check-up must be made to take service, clean and repair the unit.
- It is possible to install the unit at an height of between 2.2~2.5m from the ground, if the unit has a duct with a well defined lenght (300mm or more), to avoid fan motor blower contact.

Insulation guide



Indoor unit	A	B	C	D	Front / Back
18.0kW (1240x470x1040)	1240x1040	1240x1040	470x1040	470x1040	Insulate the front and back side in proper size at the same time when insulating the suction duct and discharge duct.

- ▶ Thickness: more than 10mm
- ▶ Insulate the end of the pipe and some curved area by using separate insulator.
- ▶ Insulate the discharge and suction part at the same time when you insulate connection duct.

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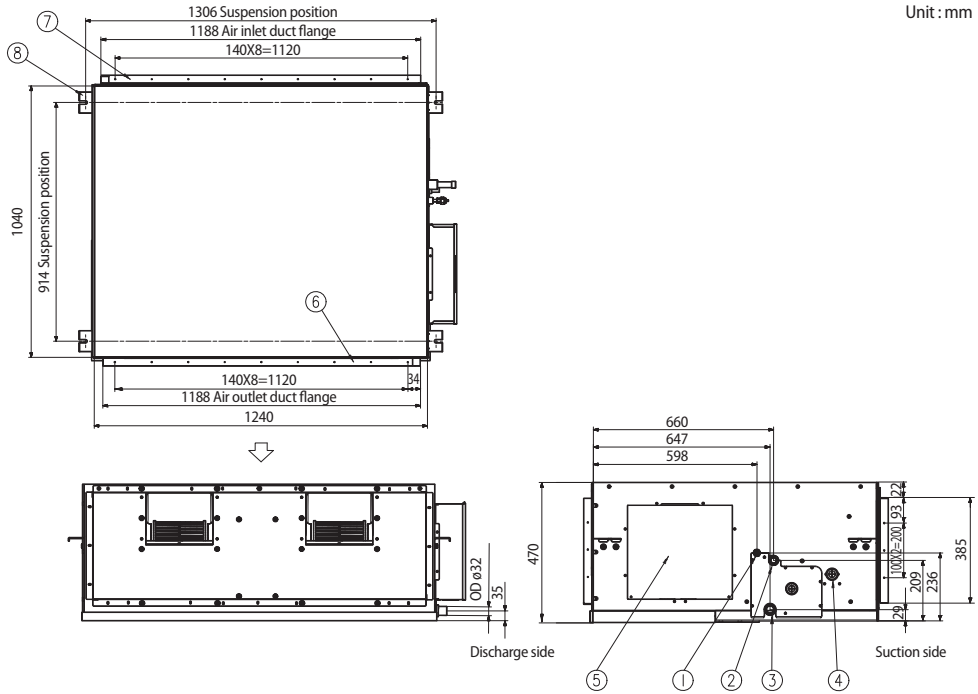
Selecting the installation location

Drawing of the indoor unit

Unit : mm



No.	Name	Description
1	Liquid pipe connection	ø9.52
2	Gas pipe connection	ø19.05
3	Drain pipe connection	VP25 (OD ø32, ID ø25)
4	Drain pipe connection (Option drain pump)	VP25 (OD ø32, ID ø25)
5	Power supply/Communication connection	-
6	Air discharge grille flange	-
7	Suction flange	-
8	Hook	ø9.52 or M10

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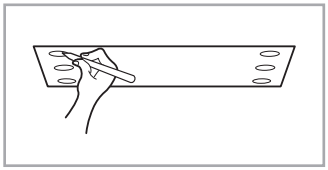
Indoor unit installation

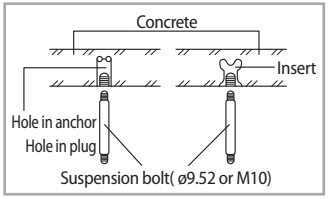
It is recommended to install theY-joint before installing the indoor unit.

1. Place the pattern sheet on the ceiling at the spot where you want to install the indoor unit.



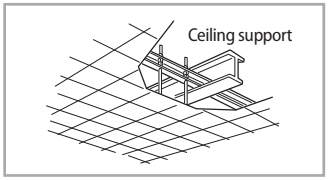
NOTE
- Since the diagram is made of paper, it may shrink or stretch slightly due to temperature or humidity. For this reason, before drilling the holes, maintain the correct dimensions between the markings.

2. Insert bolt anchors, use existing ceiling supports or construct a suitable support as shown in figure.
3. Install the suspension bolts depending on the ceiling type.

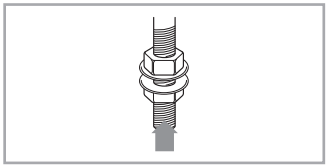


CAUTION
- Ensure that the ceiling is strong enough to support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.
- If the length of suspension bolt is more than 1.5m, it is required to prevent vibration.
- If this is not possible, create an opening on the false ceiling in order to be able to use it to perform the required operations on the indoor unit.

4. Screw eight nuts to the suspension bolts making space for hanging the indoor unit.

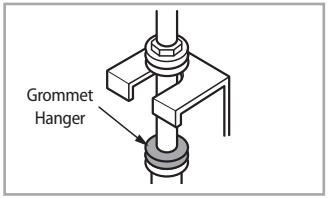


CAUTION
- You must install the suspension bolts more than four when installing the indoor unit.

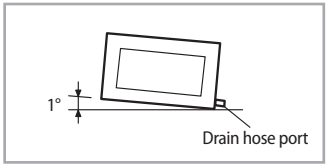


5. Hang the indoor unit to the suspension bolts between two nuts.

NOTE
- Piping must be laid and connected inside the ceiling when suspending the unit. If the ceiling is already constructed, lay the piping into position for connection to the unit before placing the unit inside the ceiling.



6. Screw the nuts to suspend the unit.
7. Adjust level of the unit by using measurement plate for all 4 sides.



NOTE
- For proper drainage of condensate, give a 1° slant to the left or right side of the unit which will be connected with the drain hose, as shown in the figure. Make a tilt when you wish to install the drain pump, too.

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Purging the unit

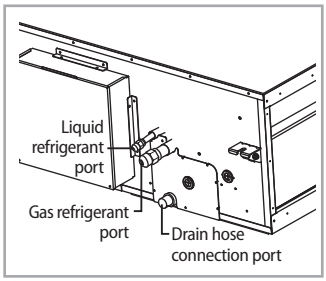
On delivery, the indoor unit is loaded with inert gas.
All this gas must be purged before connecting the assembly piping. To purge the inert gas, proceed as follows.

Unscrew the pinch pipe at the end of each refrigerant pipe.

Result : All inert gas escapes from the indoor unit.

NOTE

- To prevent dirt or foreign objects from getting into the pipes during installation, do NOT remove the pinch pipe completely until you are ready to connect the piping.



Connecting the refrigerant pipe

There are two refrigerant pipes of differing diameters :

- ▶ A smaller one for the liquid refrigerant
- ▶ A larger one for the gas refrigerant
- ▶ The inside of copper pipe must be clean & has no dust.

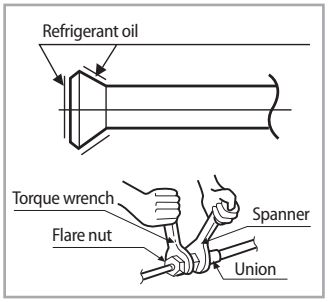
1. Remove the pinch pipe on the pipes and connect the assembly pipes to each pipe, tightening the nuts, first manually and then with a torque wrench, a spanner applying the following torque.

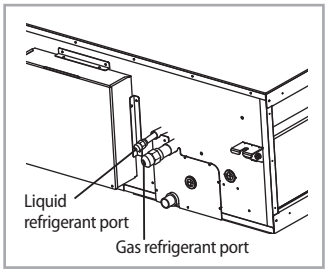
Outer Diameter (D)	Torque (N•m)
ø6.35 mm	14~18
ø9.52 mm	34~42
ø12.70 mm	49~61
ø15.88 mm	68~82
ø19.05 mm	100~120

NOTE

- Must apply refrigerant oil on the flaring area to prevent a leak.

2. Must use insulator which is thick enough to cover the refrigerant tube to protect the condensate water on the outside of pipe falling onto the floor and the efficiency of the unit will be better.
3. Cut off any excess foam insulation.
4. Be sure that there must be no crack or wave on the bended area.
5. It would be necessary to double the insulation thickness(10mm or more) to prevent condensation even on the insulator when if the installed area is warm and humid.
6. Do not use joints or extensions for the pipes that connect the indoor and outdoor unit. The only permitted connections are those for which the units are designed.





✻ The designs and shape are subject to change according to the model.

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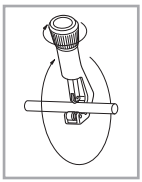
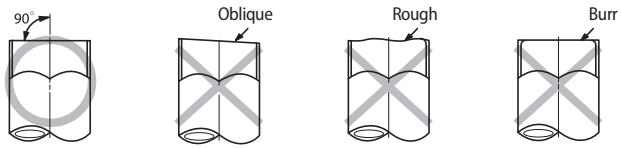
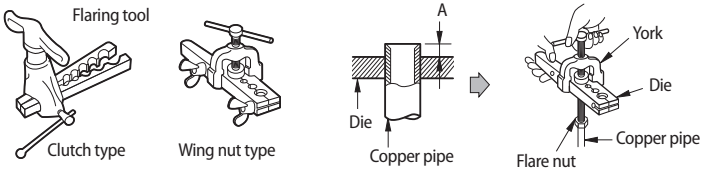
Cutting/Flaring the pipes

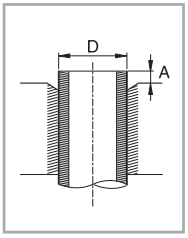
1. Make sure that you prepared the required tools. (pipe cutter, reamer, flaring tool and pipe holder)
2. If you want to shorten the pipe, cut it using a pipe cutter ensuring that the cut edge remains at 90° with the side of the pipe. There are some examples of correctly and incorrectly cut edges below.





3. To prevent a gas leak, remove all burrs at the cut edge of the pipe using a reamer.
4. Carry out flaring work using flaring tool as shown below.

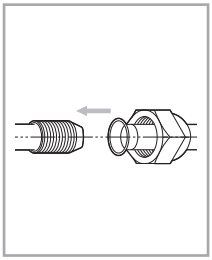




Outer diameter (D)	Depth(A)
ø6.35mm	1.3mm
ø9.52mm	1.8mm
ø12.70mm	2.0mm
ø15.88mm	2.2mm
ø19.05mm	2.2mm

5. Check if you flared the pipe correctly. There are some examples of incorrectly flared pipes below.

6. Align the pipes and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.



Valve	Flare nut		Valve cap		Pressure port cap		Valve needle		Pressure port	
	Wrench (mm)	N•m	Wrench (mm)	N•m	Wrench (mm)	N•m	Wrench (mm)	N•m	Wrench (mm)	N•m
1/4"	17	18	23	20	18	16~18	Allen(hex.) 5	9	-	0.34
3/8"	22	42	23	20	18	16~18	Allen(hex.) 5	9	-	0.34
1/2"	26	55	29	40	18	16~18	Allen(hex.) 5	13	-	0.34
5/8"	29	65	29	40	18	16~18	Allen(hex.) 5	13	-	0.34
3/4"	36	100	38	40	18	16~18	Allen(hex.) 5	13	-	0.34

CAUTION

- In case of needing brazing, you must work with Nitrogen gas blowing.

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Performing leak test & insulation

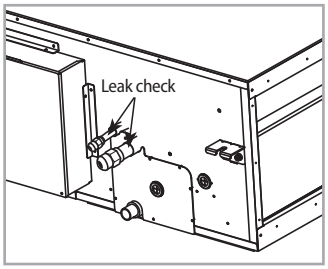
Leak test

LEAK TEST WITH NITROGEN (before opening valves)

In order to detect basic refrigerant leaks, before recreating the vacuum and recirculating the R410A, it's responsible of installer to pressurize the whole system with nitrogen (using a pressure regulator) at a pressure above 4.1MPa (gauge).

LEAK TEST WITH R410A (after opening valves)

Before opening valves, discharge all the nitrogen into the system and create vacuum. After opening valves check leaks using a leak detector for refrigerant R410A.



CAUTION
- Discharge all the nitrogen to create a vacuum and charge the system.

Insulation

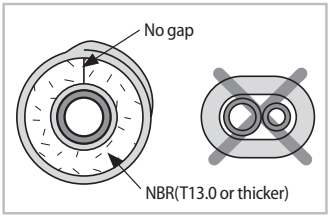
Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

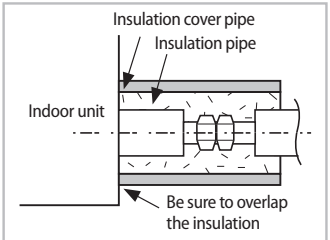
1. To avoid condensation problems, place T13.0 or thicker Acrylonitrile Butadien Rubber separately around each refrigerant pipe.

NOTE
- Always make the seam of pipes face upwards.

2. Wind insulating tape around the pipes and drain hose avoiding to compress the insulation too much.
3. Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.
4. The pipes and electrical cables connecting the indoor unit with the outdoor unit must be fixed to the wall with suitable ducts.

CAUTION
- All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.





CAUTION
- Must fit tightly against body without any gap.

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5. Select the insulation of the refrigerant pipe.

- ▶ Insulate the gas side and liquid side pipe referring to the thickness according to the pipe size.
- ▶ Indoor temperature of 30°C and humidity of 85% is the stan dard condition.
  If installing in a high humidity condition, use one grade thicker insulator by referring to the table below.
  If installing in an unfavorable conditions, use thicker one.
- ▶ Insulator's heat-resistance temperature should be more than 120°C.

Pipe	Pipe size	Insulation type (Heating/Cooling)		Remarks
		Standard [30°C, 85%]	High humidity [30°C, over 85%]	
		EPDM, NBR		
Liquid pipe	Ø6.35 ~ Ø9.52	9t	9t	Internal temperature is higher than 120°C
	Ø12.7 ~ Ø50.80	13t	13t	
Gas pipe	Ø6.35	13t	19t	
	Ø9.52	19t	25t	
	Ø12.70			
	Ø15.88			
	Ø19.05			

- ▶ When installing insulation in places and conditions below, use the same insulation that is used for high humidity conditions.

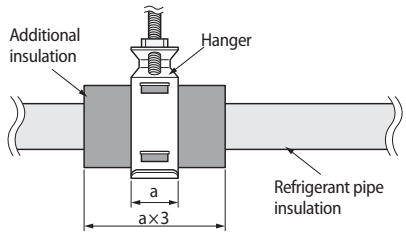
  <Geological condition>
  - High humidity places such as shoreline, hot spring, near lake or river, and ridge (when the part of the building is covered by earth and sand.)

  <Operation purpose condition>
  - Restaurant ceiling, sauna, swimming pool etc.

  <Building construction condition>
  - The ceiling frequently exposed to moisture and cooling is not covered.
    e.g. The pipe installed at a corridor of a dormitory and studio or near an exit that opens and closes frequently.
  - The place where the pipe is installed is highly humid due to the lack of ventilation system.

CAUTION

- Install the insulation not to get wider and use the adhesives on the connection part of it to prevent moisture from entering.
- Wind the refrigerant pipe with insulation tape if it is exposed to outside sunlight.
- Install the refrigerant pipe respecting that the insulation does not get thinner on the bent part or hanger of pipe.
- Add the additional insulation if the insulation plate gets thinner.



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Drain pipe and drain hose installation

Care must be taken when installing the drain hose for the indoor unit to ensure that any condensate water is correctly drained outside. The drain hose can be installed to the right or left side of the base pan.

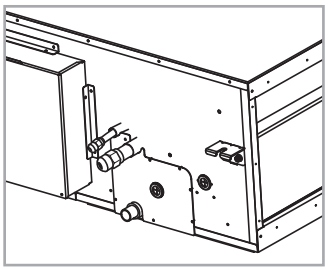
1. Unscrew the 4 tapped screws to remove the cover of the drain hose connection port.
2. Insert the flexible hose to the drain hose port.

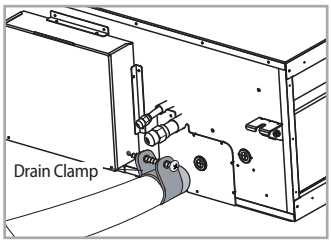
NOTE
- Fix the flexible hose to the indoor unit with the supplied cable clamp securely. (Use the screwdriver to fix the flexible hose securely.)

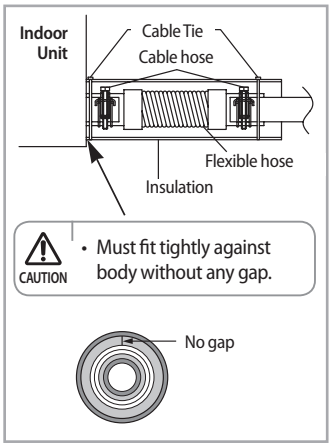
3. Install the drain hose so that its length can be as short as possible. Internal diameter of the drain hose should be the same or slightly bigger than the external diameter of the drain hose port.
   - Inner diameter of the drain hose

NOTE
- Give a slightly slant to the drain hose for proper drainage of condensate.
- Fix the flexible hose to the PVC with the supplied cable tie securely.

4. Wrap the drain hose with the insulation drain as shown in figure and secure it.







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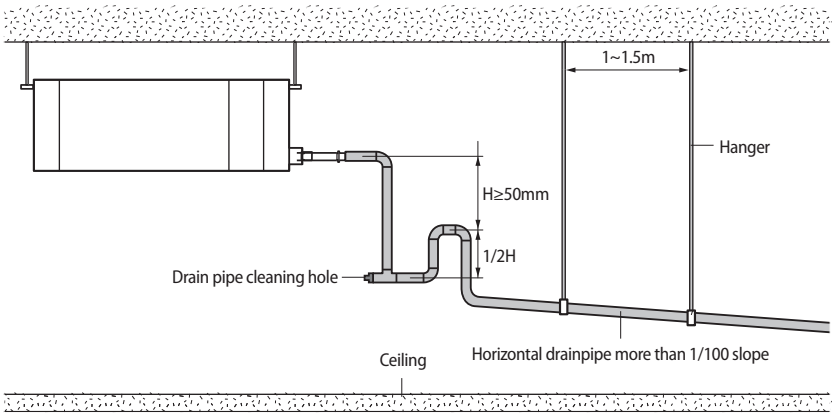
Drainpipe connection

Without the drain pump

1. Install horizontal drainpipe with a slope of 1/100 or more and fix it by hanger space of 1.0~1.5m.
2. Install U-trap at the end of the drainpipe to prevent a nasty smell to reach the indoor unit.
3. Do not install the drainpipe to upward position. It may cause water flow back to the unit.



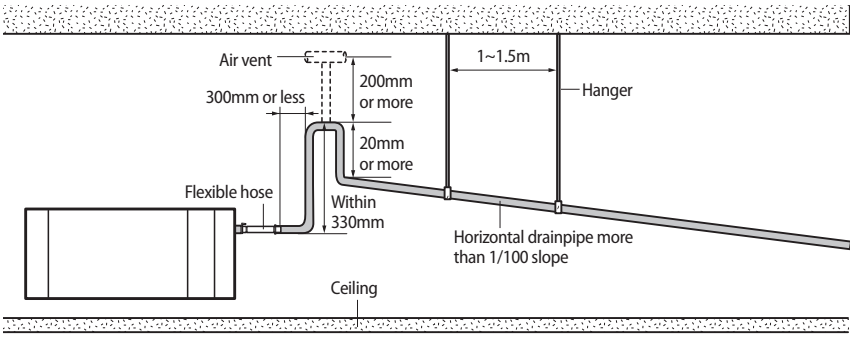
With the drain pump

1. The drain pipe should be installed within 330mm from the flexible hose and then lift down 20mm or more.
2. Install horizontal drainpipe with a slope of 1/100 or more and fix it by hanger space of 1.0~1.5m.
3. Install the air vent in the horizontal drainpipe to prevent water flow back to the indoor unit.

NOTE

- You may not need to install it if there were proper slope in the horizontal drain pipe.

4. The flexible hose should not be installed upward position, it may cause water flow back to the indoor unit.



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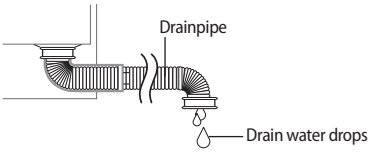
Drain pipe and drain hose installation

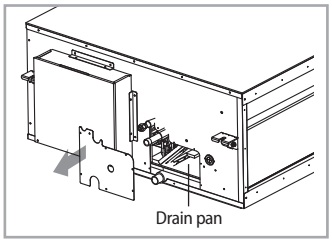
Testing the drainage

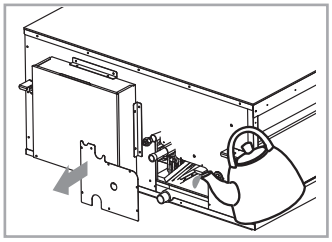
Prepare a little water about 2 liters.

1. Pour water into the base pan in the indoor unit as shown in figure.
2. Confirm that the water flows out through the drain hose.
3. When the drain pump is installed, operate the unit as cooling mode and check a drain pump pumping.
4. Check drain water drops at the end of the drain pipe.



5. Make sure there is no water leak at the drainage.
6. Reassemble the cover of water supply intake.





✳The designs and shape are subject to changeaccording to the model.

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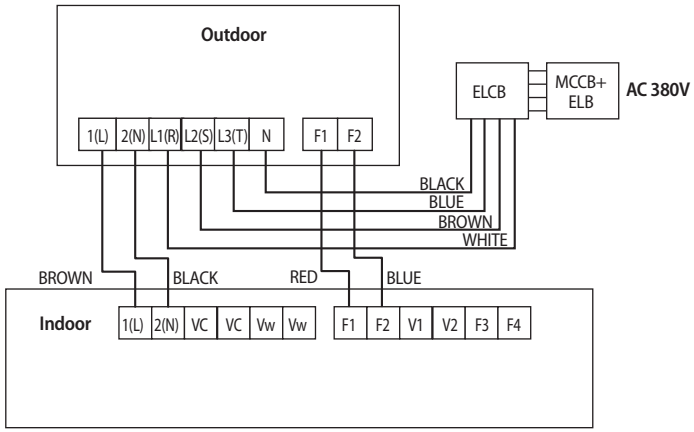
Wiring work

Power and communication cable connection

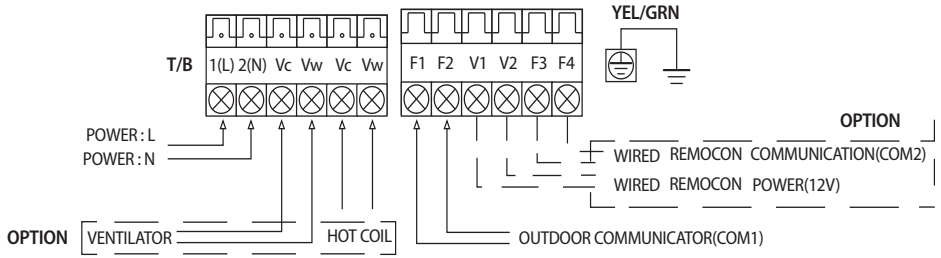
1. Before wiring work, you must turn off all power source.
2. Indoor unit power should be supplied through the breaker (ELCB or MCCB+ELB) separated by the outdoor power.
   ELCB: Earth Leakage Circuit Breaker
   MCCB: Molded Case Circuit Breaker
   ELB: Earth Leakage Breaker
3. The power cable should be used only copper wires.
4. Connect the power cable{1(L), 2(N)} among the units within maximum length and communication cable(F1, F2) each.
5. Connect V1, V2(for DC12V) and F3, F4(for communication) when installing the wired remote control.



Connecting power for optional product

▶ When installing optional product, make sure to follow below current capacity.

❋ Optional product is not supplied by manufacturer.



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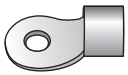
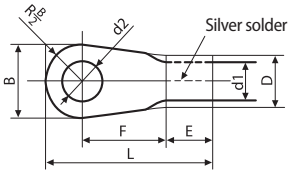
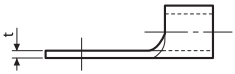
Wiring work

Selecting compressed ring terminal







Nominal dimensions for cable (inch²)		1.5		2.5		4
Nominal dimensions for screw (inch)		4	4	4	4	4
B	Standard dimension (inch)	6.6	8	6.6	8.5	9.5
	Allowance (inch)	±0.2		±0.2		±0.2
D	Standard dimension (inch)	3.4		4.2		5.6
	Allowance (inch)	+0.3 -0.2		+0.3 -0.2		+0.3 -0.2
d1	Standard dimension (inch)	1.7		2.3		3.4
	Allowance (inch)	±0.2		±0.2		±0.2
E	Min. (inch)	4.1		6		6
F	Min. (inch)	6		6		5
L	Max. (inch)	16		17.5		20
d2	Standard dimension (inch)	4.3		4.3		4.3
	Allowance (inch)	+ 0.2 0		+ 0.2 0		+ 0.2 0
t	Min. (inch)	0.7		0.8		0.9

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Specification of electronic wire

Power supply	Power cable	Earth cable	Communication cable
Max : 242V Min : 198V	1.5~2.5 mm²	2.5 mm²	0.75~1.5 mm²

❋ Run transmission wiring between the indoor and outdoor units through a conduit to protect against external forces, and feed the conduit through the wall together with refrigerant piping.

CAUTION

- Select the power cable in accordance with relevant local and national regulations.
- Wire size must comply with local and national code.
- For the power cable, use the grade of H07RN-F or H05RN-F materials.
- You should connect the power cable into the power cable terminal and fasten it with a clamp.
- The unbalanced power must be maintained within 10% of supply rating among whole indoor units.
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 10% of supply rating, the indoor unit is protected, stopped and the error mode indicates.
- To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units in the iron pipe.
- Connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring(≥3mm).
- You must keep the cable in a protection tube.
- Keep distances of 50mm or more between power cable and communication cable.
- Maximum length of power cables are decided within 10% of power drop. If it exceeds, you must consider another power supplying method.
- The circuit breaker(ELCB or MCCB+ELB) should be considered more capacity if many indoor units are connected from one breaker.
- Use round pressure terminal for connections to the power terminal block.
- For wiring, use the designated power cable and connect it firmly, then secure to prevent outside pressure being exerted on the terminal board.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.
- See the table below for tightening torque for the terminal screws.

Tightening torque		
M4	12.0~14.7kgf•cm	1.2~1.5N•m

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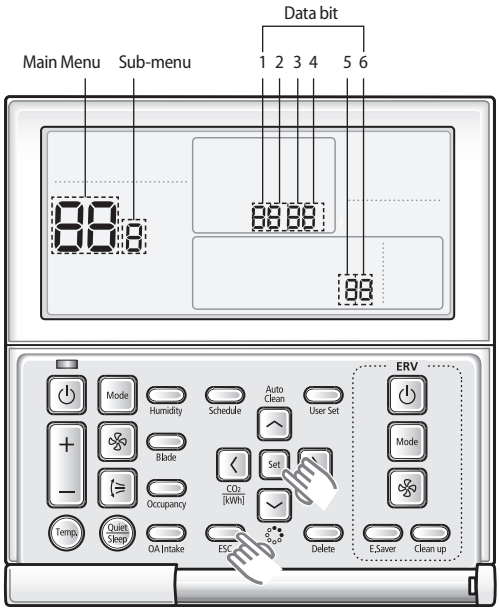
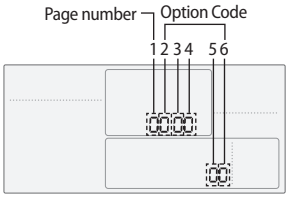
Setting the indoor unit option code

In order to set the indoor unit option code use the wired remote controller and follow the directions below.





SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	✳	✳	✳	✳	✳

Page number

SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	✳	✳	✳	✳	✳

Page number

SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	✳	✳	✳	✳	✳

Page number

SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	✳	✳	✳	✳	✳

Page number

1. Press the [Set] and [ESC] buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2. Press the [∧] / [∨] button to select 4 and then press [›] button to enter a Sub-menu setting screen.
3. Press the [∧] / [∨] button to select 2 and then press [›] button to enter a Indoor unit option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are option codes.
- The option code which is currently setting will flicker.

4. Press the [∧] / [∨] button to set the option code in order. Press [›] button to go to the next page.
5. Press the [Set] button to save and complete the option setting.
6. Press the [ESC] button to exit to normal mode.

NOTE
- Press the [ESC] button anytime during setup to exit without setting.

CAUTION
- Option code will not be applied if you don't press the [Set]
- Setting indoor unit option code is only possible in Master wired remote controller. You can only check the indoor unit option code in Slave wired remote controller.
- Setting indoor unit option code is possible when one indoor unit is connected. If more than 2 indoor units are connected, you can only check the Master indoor unit option code.

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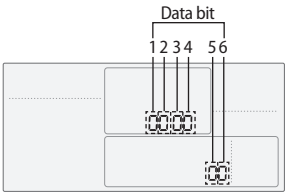
Setting an indoor unit address and installation option

Set the indoor unit address and installation option with remote controller option. Set the each option separately since you cannot set the ADDRESS setting and indoor unit installation setting option at the same time. You need to set twice when setting indoor unit address and installation option.

Setting an indoor unit address

1. Press the Set and ESC buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2. Press the ∧ / ∨ button to select 4 and then press > button to enter a Sub-menu setting screen.
3. Press the ∧ / ∨ button to select 1 and then press > button to enter a Indoor Address setting screen.



NOTE
- The Main/RMC Address which is currently setting will flicker.
- Data bit 1 and 2 present Indoor unit main address checking
- Data bit 3 and 4 present Indoor unit main address setting(outdoor unit reset is needed to set).
- Data bit 5 and 6 present Indoor unit RMC address setting/checking.

4. Press the ∧ / ∨ button to set the Indoor unit Main/RMC Address.
5. Press the Set button to save and complete the option setting.
6. Press the ESC button to exit to normal mode.

NOTE
- Press the ESC button anytime during setup to exit without setting.
- Address will not be applied if you don't press Set button.
- Setting Main/RMC Address of an Indoor unit is available only with a master wired remote controller.

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Setting an indoor unit address and installation option

Setting an indoor unit installation option

In order to check and set the indoor unit installation option code use the wired remote controller and follow the directions below.

1. Press the Set and ESC buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2. Press the ∧ / ∨ button to select 4 and then press > button to enter a Sub-menu setting screen.
3. Press the ∧ / ∨ button to select 3 and then press > button to enter a Indoor unit installation option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are installation option.
- The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number (0, 1, 2, 3).

4. Press the ∧ / ∨ button to set the installation option code in order. Press > button to go to the next page.

SGE1	SGE2	SGE3	SGE4	SGE5	SGE6
0	2	RESERVED	Exterior temperature sensor	Central control	RESERVED
SEG7	**SEG8**	**SEG9**	**SEG10**	**SEG11**	**SEG12**
1	Drain pump	RESERVED	RESERVED	RESERVED	Master / Slave
SEG13	**SEG14**	**SEG15**	**SEG16**	**SEG17**	**SEG18**
2	External control	External control output	S-Plasma ion	Buzzer	Number of hours using filter
SEG19	**SEG20**	**SEG21**	-	-	-
3	Individual control of a remote controller	Heating setting compensation	-	-	-

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Option No. : 02XXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG1		SEG2		SEG3	SEG4		SEG5		SEG6
Explanation	PAGE		MODE		RESERVED	Use of external temperature sensor		Use of central control		RESERVED
Indication and Details	Indication	Details	Indication	Details		Indication	Details	Indication	Details	
	0		2			0	Disuse	0	Disuse	
						1	Use	1	Use	

Option	SEG7		SEG8		SEG9	SEG10	SEG11	SEG12	
Explanation	PAGE		Use of drain pump		RESERVED	RESERVED	RESERVED	Master / Slave	
Indication and Details	Indication	Details	Indication	Details				Indication	Details
	1		0	Disuse				0	slave
			1	Use				1	master
			2	Use + 3minute delay				-	-

Option	SEG13		SEG14		SEG15		SEG16		SEG17		SEG18	
Explanation	PAGE		Use of external control		Setting the output of external control		S-Plasma ion		Buzzer control		Number of hours using filter	
Indication and Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
	2		0	Disuse	0	Thermo on	0	Disuse	0	Use of buzzer	2	1000 Hour
			1	ON/OFF Control	1	Operation on	1	Use	1	Non use of buzzer	6	2000 Hour
			2	OFF Control								

Option	SEG19		SEG20		SEG21		-	-	-
Explanation	PAGE		control of a remote controller		Heating setting compensation		-	-	-
Indication and Details	Indication	Details	Indication	Details	Indication	Details	-	-	-
	3		0 or 1	Indoor 1	0	Disuse	-	-	-
			2	Indoor 2	1	2℃			
			3	Indoor 3	2	5℃			
			4	Indoor 4					

5. Press the Set button to save and complete the option setting.
6. Press the ESC button to exit to normal mode.

NOTE

- Press ESC button anytime during setup to exit without setting.
- Option code will not be applied if you don't press Set button.
- Setting Installation option code is available only with a master wired remote controller.
- Setting Installation option code is available when there is one on one connection between a wired remote controller and an indoor unit.

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Option table

E.S.P(External Static Pressure)setting for phase control motor

With its phase control motor, you can adjust the indoor unit fan speed depending on the installation condition. If the external static pressure is high so that the duct becomes longer or if the external static pressure is low so that the duct becomes shorter, adjust the fan speed by referring the following table.

	Static Pressure(mmAq)				
Static Pressure (mmAq)	**5.0~7.5**	**7.5~12.5**	**12.5~17.5**	**17.5~22.5**	**22.5~25.0**
Model	**Option code for indoor unit**				
NS180HHXEH	011074-1660C6-27B4D2-370010	011074-1560F9-27B4D2-370010	011074-15622D-27B4D2-370010	011074-156352-27B4D2-370010	011074-156396-27B4D2-370010
NS180HHXEG	011074-1560D6-27B4D2-370000	011074-15620A-27B4D2-370000	011074-15622D-27B4D2-370000	011074-156352-27B4D2-370000	011074-156396-27B4D2-370000

CAUTION

- The operating External Static Pressure range of the product is 5~25mmAq. Using the product outside this range may cause malfunction.
- Select an adequate option code within the External Static Pressure range for each indoor unit. Selecting an inadequate option code may cause malfunction.
- The option code can be chosen according to the External Static Pressure ranges: 5~7.5mmAq, 7.5~12.5mmAq, 12.5~17.5mmAq, 17.5~22.5mmAq, 22.5~25.0mmAq (Refer to the above table). The default option code is for External Static Pressure range of 5~7.5mmAq.

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Troubleshooting

- ▶ If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- ▶ If you re-operate the air conditioner, it operates normally at first, then detect an error again.

LED Display on the receiver (Optional)

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	Green	Red				
	Standard Type					
Power reset	◑	×	×	×	×	
Error of temperature sensor in the indoor unit (Open/Short)	×	×	◑	×	×	
Error of heat exchanger sensor in the indoor unit	◑	×	◑	×	×	
Error of the outdoor temperature sensor Error of the condensor temperature sensor Error of the discharge temperature sensor	◑	×	×	◑	×	
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking. (Communication error for more than 2 minutes)	×	×	◑	◑	×	1. Indoor unit error (Display is unrelated with operation) 2. Outdoor unit error (Display is unrelated with operation)

● On ◑ Flickering × Off

▶ If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

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Troubleshooting

- ▶ If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- ▶ If you re-operate the air conditioner, it operates normally at first, then detect an error again.

LED Display on the receiver (Optional)

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	Green	Red				
	Standard Type					
Communication error between indoor units	◑	×	×	×	◑	
1. Error of electronic expansion valve close 2. Error of electronic expansion valve open 3. 2'nd detection of high temperature cond 4. 2'nd detection of high temperature discharge 5. Error of reverse phase 6. Compressor down due to 6th detection of freezing	×	×	◑	◑	◑	
Detection of the float switch	×	×	◑	◑	◑	
Error of setting option switches for optional accessories	×	×	◑	×	◑	
EEPROM error	◑	×	◑	◑	×	
EEPROM option error	◑	◑	◑	◑	◑	

● On ◑ Flickering × Off

- ▶ If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

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Wired remote control

▶ If an error occurs, TEST is displayed on the wired remote control.
If you would like to see an error code, press the Test button.

Display	Explanation	Remark
101	Indoor unit Communication Error	Communication Error
102	Indoor/Outdoor unit Communication Time Out Error	
	60 Packet Over data	
201	Indoor unit is not connected	
203	Communication Error between Outdoor Main and Inverter Micom (Occurred after 1 minute detection in Main and Inverter)	
121	Indoor Temp. Sensor (Open/Short Error)	Indoor Sensor Error
122	Indoor Unit Eva in Sensor (Open/Short Error)	
128	Indoor Unit Eva in Sensor Separation	
221	Outdoor Temp. Sensor Error (Open/Short Error)	Outdoor Sensor Error
237	COND Temp. Sensor Error (Open/Short Error)	
251	Inverter Compressor Discharge Temp. sensor Error (Open/Short Error)	
425	Power cable miss connection error	
153	Indoor Float S/W 2nd Detection	Self Diagnosys Error
460	Outdoor unit - indoor unit communication wire miss connection (Connected to Power terminal)	
554	Outdoor unit refrigerant Full leakage (Gas leak)	
458	Outdoor Fan 1 Error	
475	Outdoor Fan 2 Error	
416	Discharge over temperature	Outdoor Unit Protection Control Error
461	[Inverter] Compressor starting error	
462	Primary Current Over Trip error	
464	[Inverter] DC PEAK error(O.C)	
467	[Inverter] Compressor Rotation error	
468	[Inverter] Current Sensor error	
469	[Inverter] DC LINK Sensor error	
471	[Inverter] EEPROM Read/Write Error	
474	[Inverter] Heatsink temperature over Error	
556	Outdoor unit Capacity Setup option error	
601	Communication error between Indoor unit and wired remote control	Wired Remote Control Error
602	Communication error between Master and Slave wired remote control	
606	COM1/COM2 Cross-installed error	
EA	Error of setting option for wired remote control COM2	

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Memo

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Memo

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